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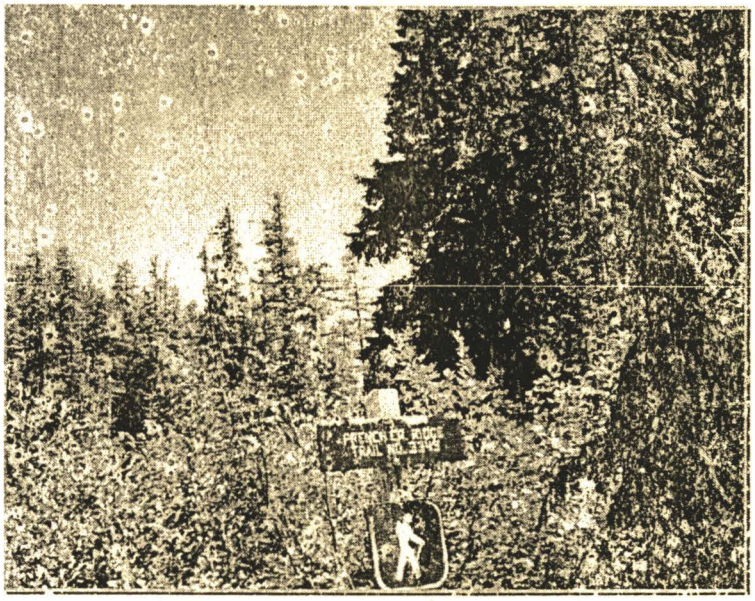
Day Use of National Forest Series:

The Willamette National Forest, 2002



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Pacific Southwest Research Station

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Executive Summary

It is important to examine use of recreation sites and get visitor points of view about those sites. Of particular importance are day use sites, which receive a large amount of use but little research emphasis. The following reports results from a day use visitor contact study conducted on the Willamette National Forest in summer 2002. The survey is a replication of the day use studies conducted on National Forests in southern California from 1992-94, 2000-01. The purpose was to provide to managers information based on day use visitor opinions. Topics addressed included visitor characteristics, visitation patterns, activity patterns, interpretation, communication and information patterns, importance of site attributes and other visitor perceptions. We also sought to conduct comparisons among specific subgroups (e.g., age, education).

Day use sites were randomly selected for inclusion in the study and dates of weekend data collection were randomly selected throughout the summer months. Data were collected from 173 recreationists.

Overall results indicate that Willamette National Forest visitors were white, an average 40 years of age, an average 15 years of education with annual household incomes over $50,000. Most day use visitors were born in the U.S. Most of the visitors were with family and friends and planned to stay more than 6 hours. Most were first-time visitors and had traveled an average 2 hours to get to the site contacted. Repeat visitors had been returning to the day use sites an average 11 years. These visitors usually engaged in camping, day hikes and picnics/barbecues while on-site. Many reported usual activities to be driving for pleasure, sightseeing, fishing, boating and viewing wildlife. Additionally, mountain bike riding was reported as a favorite activity and one that visitors engaged in often. Day use visitors reported an interest in informational talks on local mountain history and animals and their habitat. They heard about the day use sites from informal or word-of-mouth sources such as family and friends. On-site preferences for information sources include a brochure at the entrance to the site, bulletin boards, signs along the road, and ranger visits. The kinds of things they would most like to get information about include hiking in the area, camping in the area, location of day hike trails, history of the area, best times to visit the area to avoid crowds, rare types of plants and animals and cultural and historical features of the area. Preferred site attributes were trashcans, water faucets, picnic tables, parking areas and fire pits/rings. They preferred somewhat challenging trails that take about an hour to walk. The visitors were most bothered by litter at picnic sites, litter along the road and drawing or graffiti on natural

and man-made structures. Most held positive feelings regarding their trip and plan to tell other people about the trip, plan to return, and had a great recreation experience. Important subgroup differences were noted for repeat visitations (e.g., tend to be older and visit many places), age (e.g., older visitors engage in more activities and want a variety of information), and education (e.g., tend to be day hikers and prefer somewhat challenging trails).

Managers of the Willamette National Forest can use the results of this report in several ways. Site management and site planning are the key uses of the results from the survey of day users of the Forest. The demographics suggest a mostly white and English speaking and reading clientele, suggesting a focus on English language communications. Of course, multiple languages in communications will enhance outreach to those groups who may be underrepresented at day use sites. There is a great deal of interest in many topics including information about additional activities on the Forest and features about the Forest. It appears that brochures, information on bulletin boards and signs along the road can offer a variety of information. The data also suggest that visitors prefer a fair amount of development of sites. Some of the sites are already developed but some could be developed further to provide trashcans, water faucets, picnic tables, parking areas, and fire pits/rings. Note though that not all sites are appropriate for these kinds of development. The data also suggest that it is important to visitors that sites are clear of litter and free of graffiti. This is often difficult to do, but day use visitors appreciate clean areas. Finally, visitors plan to return to the site and to tell other people about the site which suggests planning for additional visitation, and potentially visitation by new visitors, making it important to evaluate the differences between first time and repeat visitors, including age-related considerations.

Background

The social environment for many outdoor recreation areas has been changing. In some states it is the racial/ethnic makeup that is changing. In other states the changes might be in age, education, income, family composition or some other variable or set of variables. It is likely that individuals who belong to these changing groups bring a set of values and behaviors to public lands that differ from that of "traditional" users, and perhaps, land managers. These changes may be felt the strongest in resource programs dealing with visitor use such as recreation, cultural resources, and lands (Chavez 2001). Understanding visitor demographics and values is critical to managing outdoor recreation sites.

It is important to examine use of recreation sites and get visitor points of view about those sites. Of particular importance are day use sites, which receive a large amount of use but little research emphasis. Managers of day use sites can better manage with detailed information about visitor demographics, visitation patterns, visitor communication patterns and visitor preferences.

The following reports results from a day use visitor contact survey conducted on the Willamette National Forest in summer 2002. The survey is a replication of the day use surveys conducted on National Forests in southern California from 1992-94, 2000-01 (Chavez & Mainieri 1995; Chavez, McCollum & Olson 2002; Chavez, Winter & Mainieri 1995a; Chavez Winter & Mainieri 1995b). The purpose of the current study was to investigate day use recreation on the forest and use this year's data as a baseline to provide detailed user information for site managers and to use for future comparison. The primary objectives were to:

(1) Gain a stronger understanding of recreation visitor characteristics,

(2) Report visitation patterns,

(3) Determine on-site activities,

(4) Determine interpretation, communication & information patterns,

(5) Report on the relative importance of site attributes,

(6) Report other visitor perceptions, and

(7) Make comparisons among specific subgroups for objectives 1 – 6.

The Willamette National Forest covers 1,675,407 acres in western Oregon. About one-fifth of the Forest is Wilderness and seven major peaks are within Wilderness boundaries. Residents of Salem, Albany, and Eugene can easily access the Willamette National Forest.

Methods

The day use survey instrument was initially developed for evaluation of urban-proximate National Forests in 1992. The Office of Management and Budget approved the survey instrument (expired October 2002). The instrument closely follows the questions asked of day use visitors since 1992.

Student teams from Oregon State University, led by Dr. Joanne Tynon, collected data under a cooperative agreement with the Pacific Southwest Research Station. The research was conducted under the auspices of the OMB approval as well as a study plan filed with PSW, and underwent review by the Human Subjects committee at Oregon State University.

Dates of data collection were randomly selected throughout the summer months 2002. Data were collected from 173 recreationists at day use sites on weekend days from June 22nd to August 24th 2002. The data collection days were on Saturdays (8) and Sundays (8). The survey instruments were available in English and Spanish.

Day Use sites were also randomly selected from a list provided by the Willamette National Forest of all developed picnic areas, general day use areas, and trailhead sites across the Forest. The following areas were selected: Clear Lake Picnic Area; CT Beach, Hills Creek Reservoir; Black Canyon, Lookout Point Reservoir; Big Lake Day Use Area; Salt Creek Falls Observation Site; Trout Creek, Highway 20; Marion Forks; Bruckart Bridge Boat Launch; Frissel-Carpenter Boat Launch; Olallie Boat Launch; Saddle Dam Boat Launch; House Rock Trailhead; McKenzie North Entrance Trailhead; McKenzie South Entrance Trailhead; French Creek Ridge Trailhead, Opal Creek Wilderness; and Tenas Lake, Mt. Washington Wilderness. The site types included: trailhead (n = 75); boat launch (n = 41); day use area (n = 27); picnic area (n = 17); and vista, overlook, observatory, or view point (n = 13).

All visitors (age 18 or over) on-site were asked for their voluntary participation in the survey. Visitors were assured confidentiality of their responses. A total of 261 adults were contacted, and of those contacted 173 agreed to fill out questionnaires (66%). Usual reasons for not participating in the research process were: "I'm out here to enjoy nature not to do paperwork", "busy dealing with trash and children" and "didn't want to fill it out."

A few variables were created and used for the analyses so that comparisons could be made between specific subgroups. These include (1) first-time visitors (n=97) versus repeat visitors

(n=75); (2) age using 38 as the median, respondents under age 38 (n = 84) and respondents age 38 or older (n = 86); (3) education experience some college or less (n = 77) and those with at least a college diploma (n = 95).

Results

Responses are provided in the form of percentages. Some averages, or means, are also provided where appropriate. Statistics are reported for all 173 respondents unless noted otherwise.

Visitor Characteristics

Among day use site visitors, a little over half were female (54%) and 46 percent were male. Respondents' age ranged from 18 to 78 years, with an average age of 40 years (SD=14.07). On average, survey respondents had 15 years of education (SD=2.65). Approximately 16 percent of visitors had a high school education, over half said they had some college education or a degree (54%), while 27 percent of the visitors said they had done graduate work.

White (86%) were the largest racial/ethnic group of those visitors surveyed, followed by Asian (2%) and American Indian or Alaskan Native (1%). There were 4 percent who described themselves as Hispanic/Latino. English was spoken (96%) and read (97%) most of the time by the majority of the visitors surveyed.

Most of the visitors surveyed indicated they were born in the United States (95%) and have resided in the United States all their lives (93%). Of those who born elsewhere (5%), the average amount of time lived in the United States was 29 years (SD=21.0).

Household income was quite varied, with more than half of visitors (51%) reporting an annual household income of $50,000 or more (see Fig. 1).

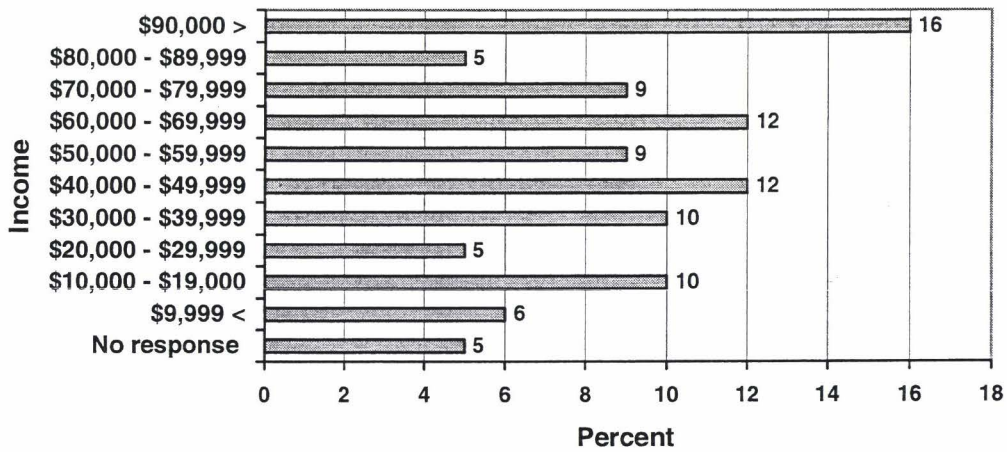

Figure 1. Annual household income (n = 173)

The majority of day use visitors were recreating with family members (69%) and friends (48%). Some respondents were recreating alone (5%) and others were with an organized group (2%).

Visitors 38 and older were more likely to be with family (81%, p=0.000) and those 37 and younger were most likely to be with friends (60%, p=0.002).

Respondents were also asked how long a visit they would have (see Fig. 2). Over a third planned to stay more than six hours (38%), a quarter planned on a one- to three-hour visit (24%), or a four- to six-hour (25%) visit, while a small portion (12%) planned to stay less than an hour.

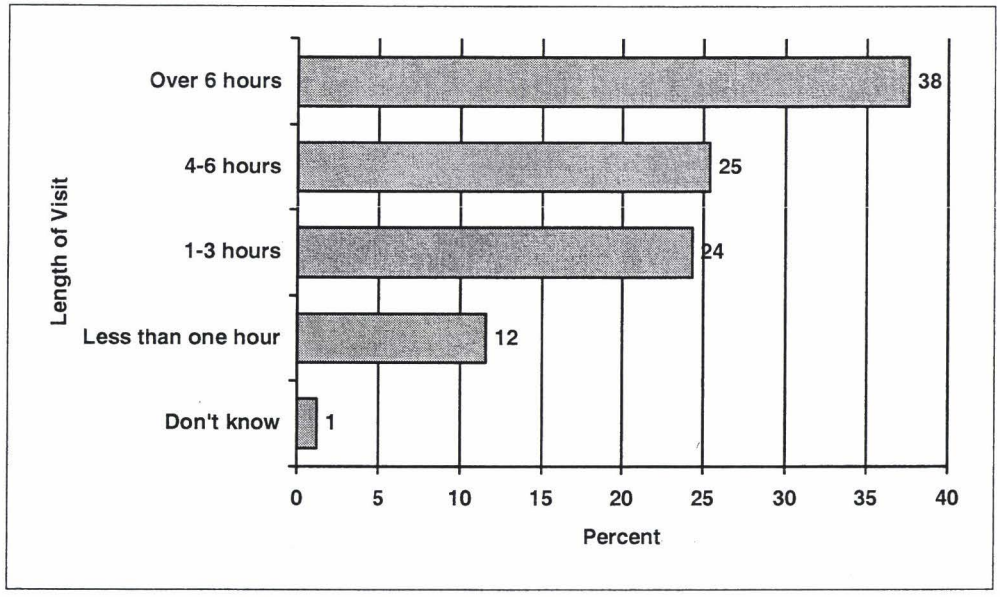

Figure 2. Length of visit (n = 173)

Visitation Patterns

Over half of the respondents were first time visitors (56%) to the forest sites; that is, they had never been to the site before.

Repeat visitors to this site tended to be older (mean=43.5 years) than first time visitors (mean=37.7 years, $t(167)=-2.67$, $p<0.008$). Of the repeat visitors, most had visited this site an average four times in the past 12 months (range = 0 to 35 times; SD=6.16) and had been returning for about 11 years (SD=12.68).

Almost two- thirds of the day use visitors (60%) were planning to return to the site again in the next 12 months. Another 31 percent were unsure of their plans, while 9 percent had no plans to return. Most of the day use visitors (83%) had visited other National Forest day use areas in the past 12 months and these people had made an average ten visits (SD=17.36).

Repeat visitors visited more National Forest day use sites in the past year (mean=13.1 sites) than first time visitors (mean=6.6 sites, $t(69)=-2.06$, $p<0.043$).

A quarter of the day use visitors traveled more than an hour to get to the recreation site (25%); most traveled an average of two hours to get to the site (75%; SD=1.01). Visitors with college degrees were more likely to come from a greater distance, taking an hour or longer to get to the site (83%, $p=0.010$).

Visitor Activities On-site

A series of four questions addressed activity patterns while visiting National Forests: "which activity do you usually engage", "which activity is your favorite", "which do you do more often", and "which activities are you doing today." Figure 3 indicates that day use visitors primarily engaged in about six activities (SD=2.74), including "camping" (67%), "day hiking" (61%) and "picnics/barbecues" (51%). Other usual activities were "driving for pleasure", "sightseeing", "fishing", "boating" and "watching wildlife." Items in the "other" category include shooting, appreciate trees/nature, relax/rest, surf, rock climb, swim, scuba and hot springs.

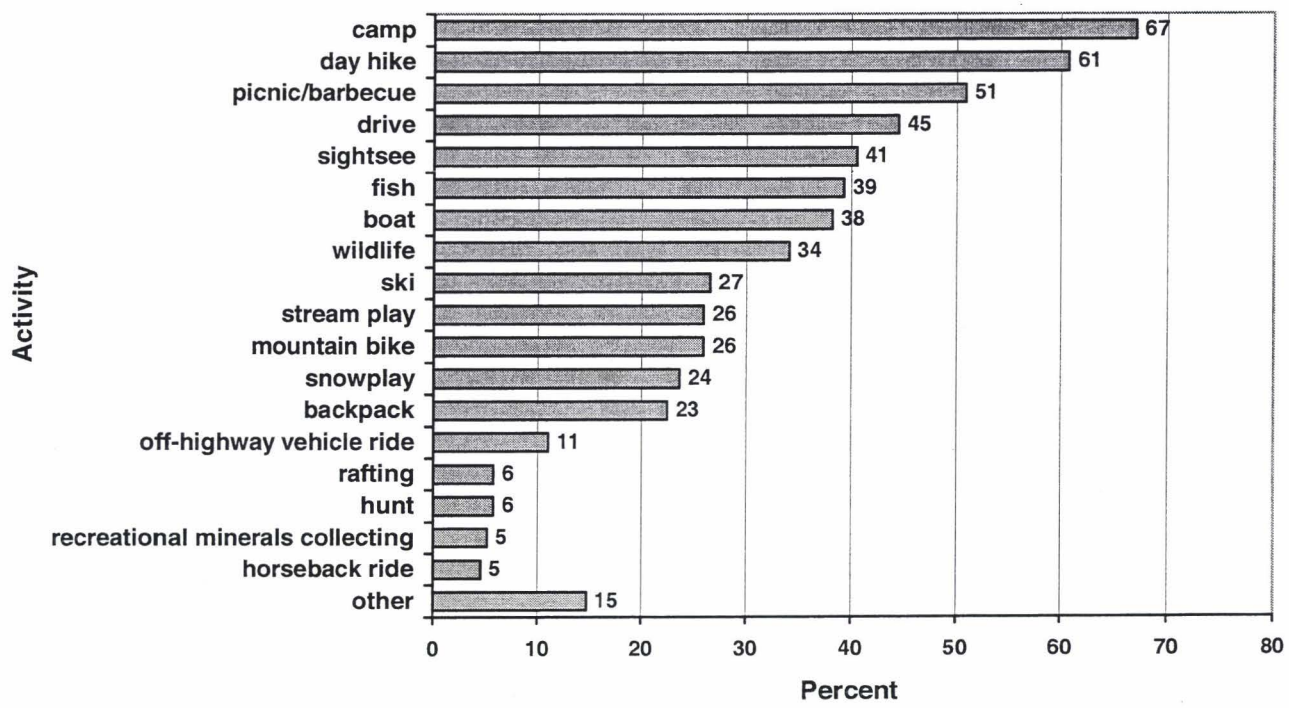

Figure 3. Activities in which respondents usually engage while visiting the National Forests (n = 173; 746 multiple responses).

Visitors with college degrees and higher were more likely to "day hike" (73%, p=0.000), while those with some college or less were more likely to "camp" (76%, p=0.024) while in the national forests.

Figure 4 indicates that the favorite activity among the day use visitors was to "camp" (21%) while on the forest. Other favorite activities included "mountain bike ride" (12%), "boat" (12%) and "fish" (10%). Combined into the "other" category were picnic/barbecue, horseback ride, hunt, appreciate trees/nature and swimming.

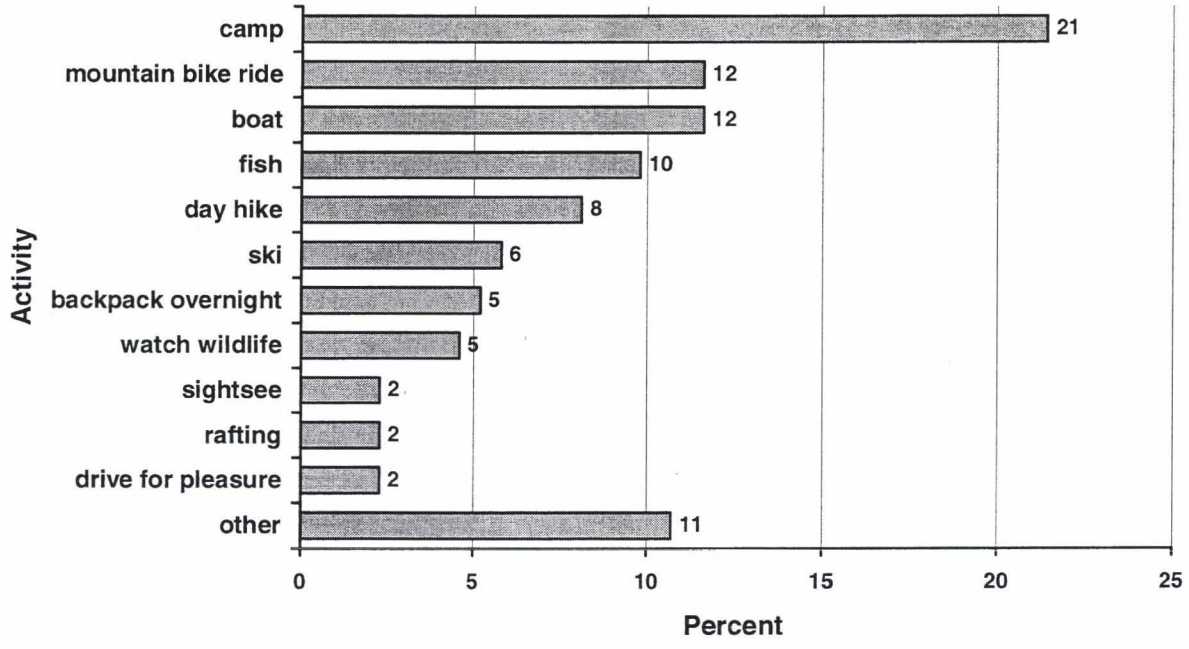

Figure 4. Favorite activities (n = 173)

Figure 5 indicates that the activity engaged in most often among the day use visitors was "camp" (21%) and "day hike" (15%) while on the forest. Other activities included "mountain bike riding" (10%), "boat" (9%) and "fish" (9%). Combined into other were picnic/barbecue, stream play, backpack overnight, hunt, watch wildlife, rock climb and hot springs.

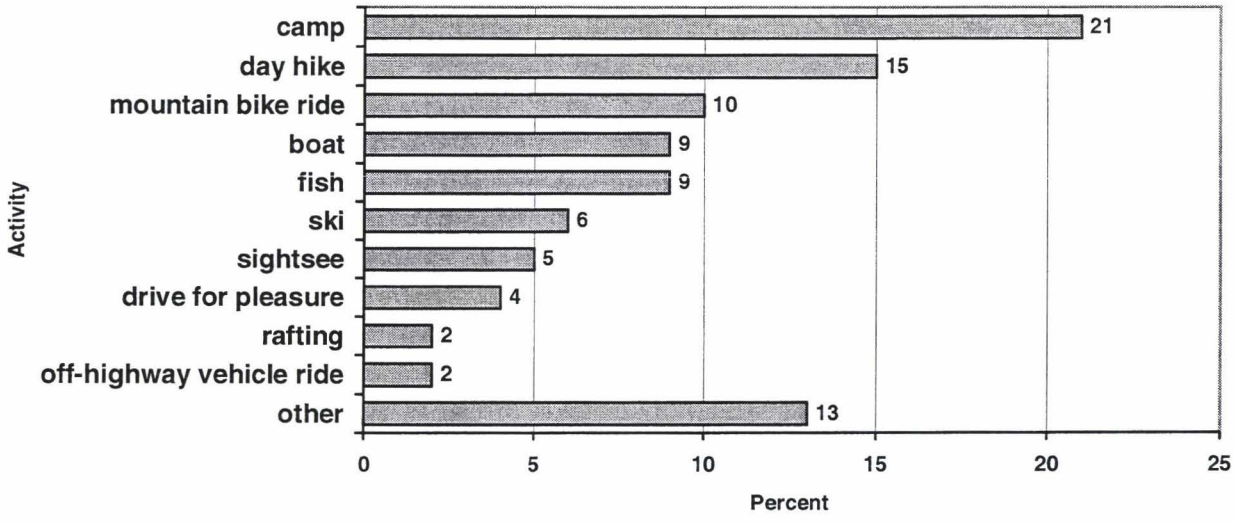

Figure 5. Activities engaged in most often (n = 173)

Most day use visitors were engaged in the following activities on the day we contacted them: "camp" (28%), "day hike" (19%) and "boat" (18%; see Fig. 6). Other activities included "drive for pleasure", "sightsee", "mountain bike ride", and "fish". Combined into the "other" category were appreciate trees/nature, off-highway vehicle ride, and scuba.

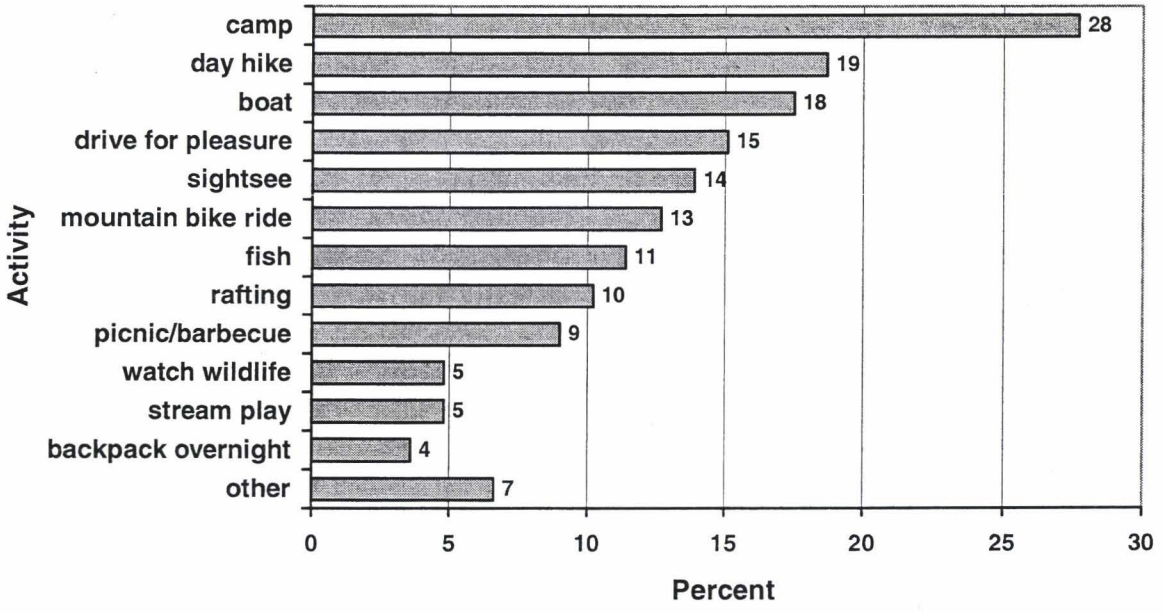

Figure 6. Activities on day contacted (n = 173; 259 multiple responses).

Visitors engaged in an average of 1.6 activities (SD=2.34) on the date contacted. Visitors 38 years and older participated in more activities (mean=1.8 activities) than younger visitors (mean=1.4 activities, $t(161)=-2.40$, $p<0.018$) the day of the survey.

Respondents were asked if they had heard of, had tried, or might try a range of recreational activities in three different categories: Traditional activities (i.e., natural history hikes, horseback tours), new activities (i.e., mountain biking, camera safaris, eco-tours), and high risk activities (i.e., heli-skiing, bungee jumping, hang gliding). Overall, the results indicate that the "traditional" activities were the ones most likely to have been heard of, tried, and would possibly be tried in the future with the exception of "mountain biking" which 6 in 10 had tried or might try and "bungee jumping" and "hang gliding" which 8 in 10 had heard of but few had tried (see Fig. 7).

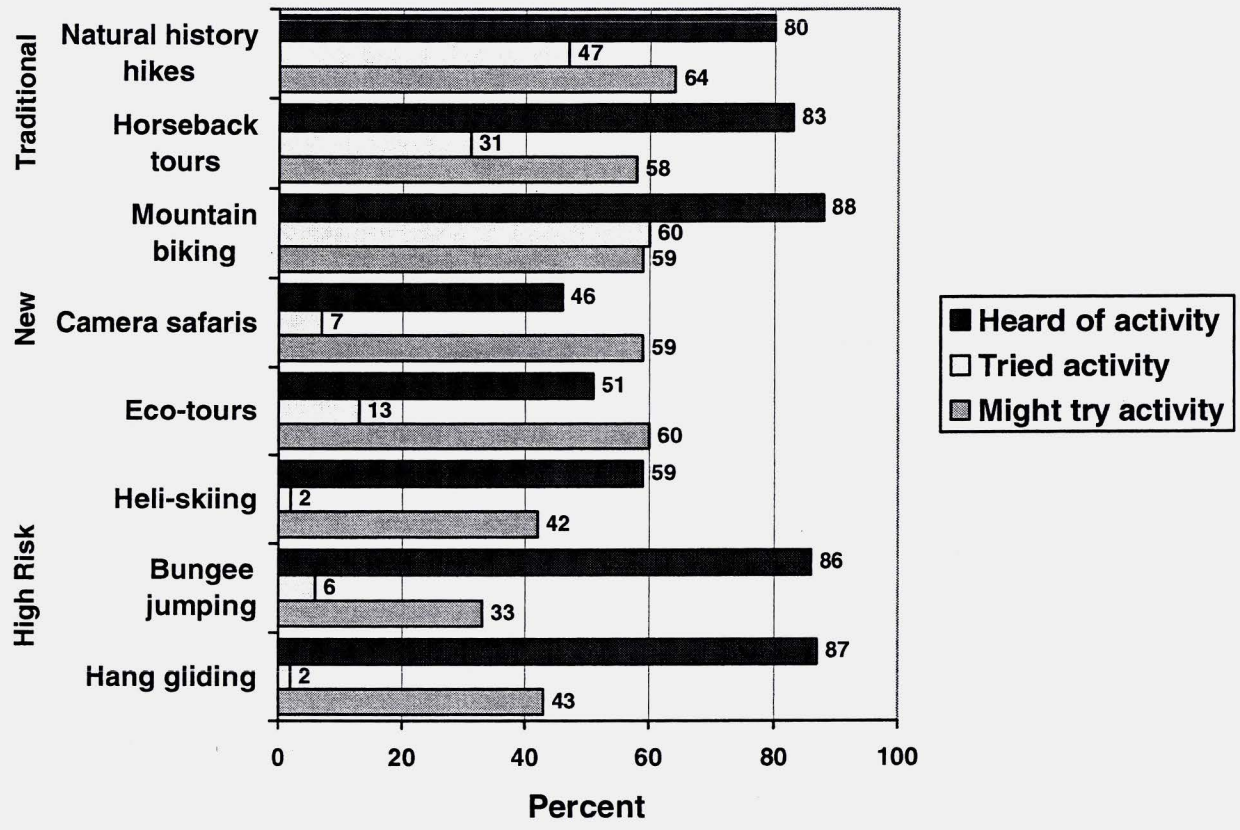

Figure 7. Activity trends (n = 173)

Visitors with college degrees and higher were more likely to have heard of "heli-skiing" (73%, p=0.016) and "eco-vacation" (69%, p=0.000), while those 38 years and older were more likely to have heard of "natural history hikes" (95%, p=0.001). Visitors 37 and younger were more likely to have tried "mountain biking" (83%, p=0.000) or will try it in the future (97%, p=0.000). First time visitors were more likely to try "eco-vacation" (84%, p=0.004).

Interpretation, Communication, and Information

Day use visitors were interested in a variety of informational talks (see Fig. 8). Almost half of the respondents indicated they would attend talks on "local mountain history" (47%) or "animals and their habitats" (45%) if offered. Other popular topics were "effects of pollution on forests" (24%), and "citizens involvement in forest protection" (23%). Preferred children's topics (n=32) included "talks on wildlife", "a kid nature walk", "how kids can protect the environment" and "forest ecology."

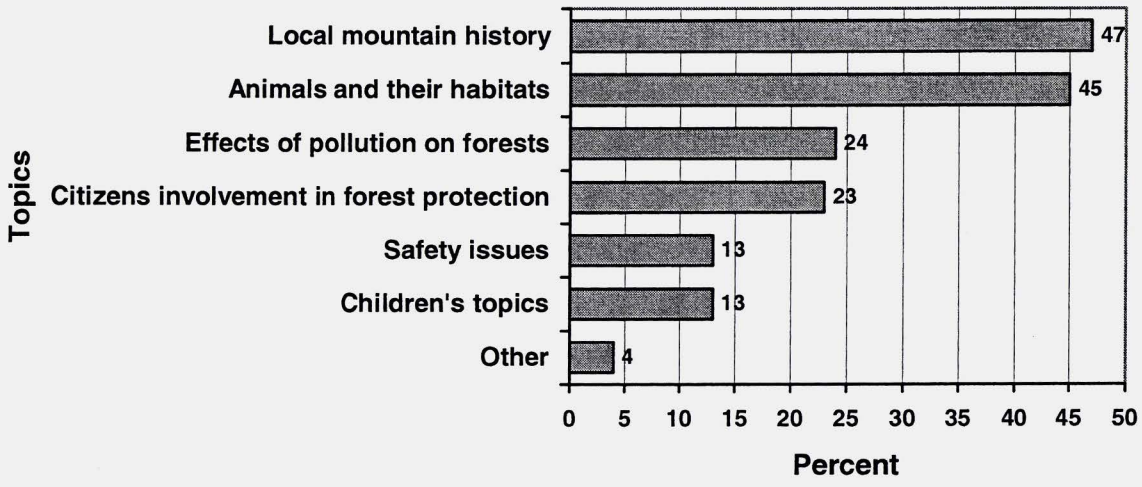

Figure 8. Ranger led activities in which respondents would participate (n = 173; 290 multiple responses).

Respondents were asked how they first heard about the day use sites on the Forest. Most of the visitors (68%) heard about these day use sites by word-of-mouth sources such as family members and friends (see Fig. 9). Other sources include "driving by", "books", or "maps".

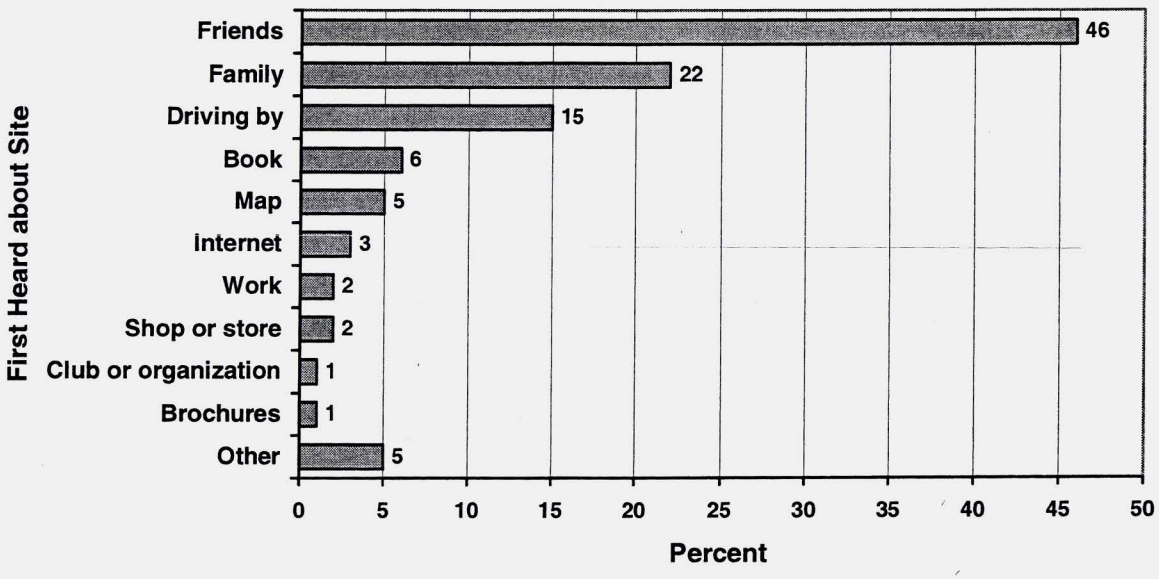

Figure 9. Information sources participate (n = 173; 186 multiple responses).

Respondents were asked how they might like to receive information about National Forests while on-site. They were given response choices (e.g., brochure at entrance), and for each rated it as a source they liked or disliked. Most of the respondents indicated that brochures given out upon entrance to the recreation site, postings on bulletin boards, and signs along the road were favorable ways to obtain information on-site (see Fig. 10).

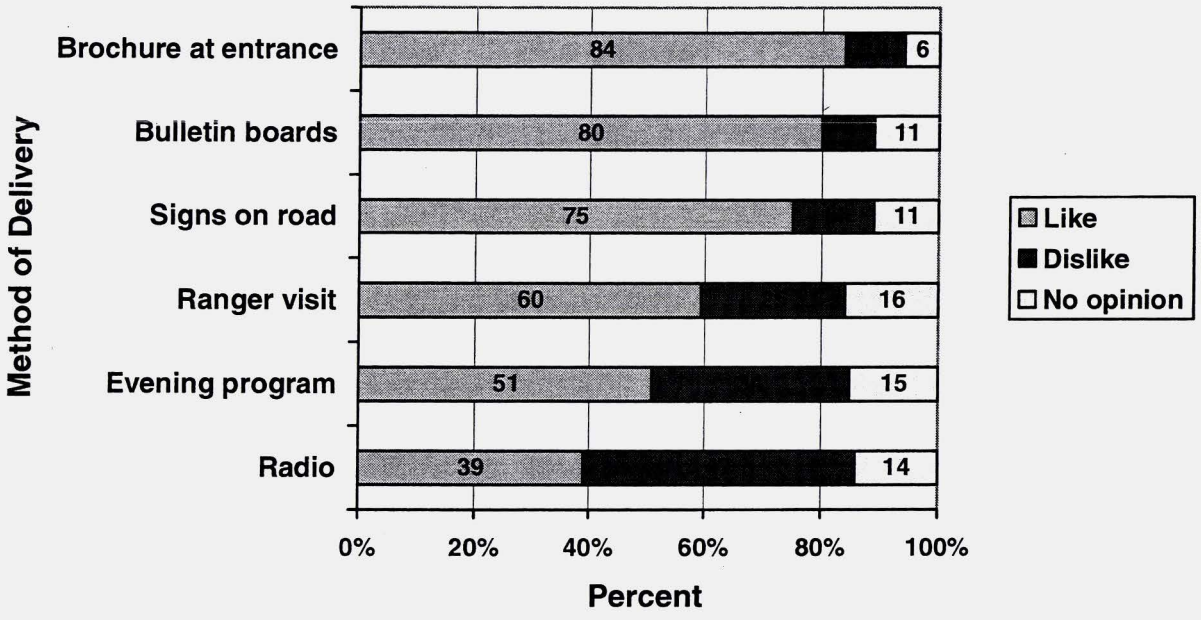

Figure 10. Preferences for information related to National Forests while on-site (n = 173).

Visitors 38 years of age and older were more likely to want to receive information from "evening programs at information center" (69%, p=0.028) or by "ranger visits" (82%, p=0.001), and repeat visitors preferred to get information from "bulletin boards" (95%, p=0.042).

When asked the types of site information desired, almost three-quarters of the respondents indicated an interest in learning more about "hiking in the area" (73%) and "camping in the area" (72%), requesting an average of 10.4 items (SD=5.89, see table 1). Also of interest to more than half of the visitors were "location of day hike trails", "history of the area", and "best times to visit the area to avoid crowds", "rare types of plants and animals", and "cultural and historical features of the area". Fewer people were interested in information on "off-highway vehicle areas", "shooting areas" and "hunting in the area".

Table 1. Kinds of information respondents would like to receive (n = 173; 1804 multiple responses)

73%	hiking in the area	47%	ways to protect the wild area
72%	camping in the area	46%	ways to keep the area natural looking
68%	location of day hike trails	43%	streamside areas
58%	history of the area	43%	places similar to this one
58%	best times to visit the area to avoid crowds	42%	rules and regulations
53%	rare types of plants and animals	40%	location of overnight trails
51%	cultural and historical features of the area	32%	safety in the area
50%	things to see and do	28%	surrounding area to the forest
49%	similar areas that are not crowded	19%	off-highway vehicle areas
48%	types of plants and animals in the area	13%	shooting areas
48%	picnic/barbecue areas	12%	hunting in the area
48%	fishing in the area	2%	other

Visitors 38 and older were more likely to want information about the "location of day hike trails" (77%, p=0.024) and "history of the area" (65%, p=0.046). Visitors with college degrees and higher were more likely to want information about "best times to visit the area to avoid crowds" (65%, p=0.023), "hiking in the area" (83%, p=0.001), "location of day hike trails" (80%, p=0.000), "rare types of plants and animals" (61%, p=0.011) and "cultural and historical features of the area" (59%, p=0.036).

A few questions were asked in order to assess visitors' knowledge of the rules and regulations pertaining to National Forest use. Overall, respondents averaged 2.2 correct answers to the four questions (SD=1.24). Also, a little more than half of the participants demonstrated an understanding of these rules, with over a third not knowing the rule or not responding to the question (see Fig.11). Receiving the most correct responses were the rules "you can get a ticket for cutting forest vegetation (e.g., tree branches)" and "you can't bring a dog here".

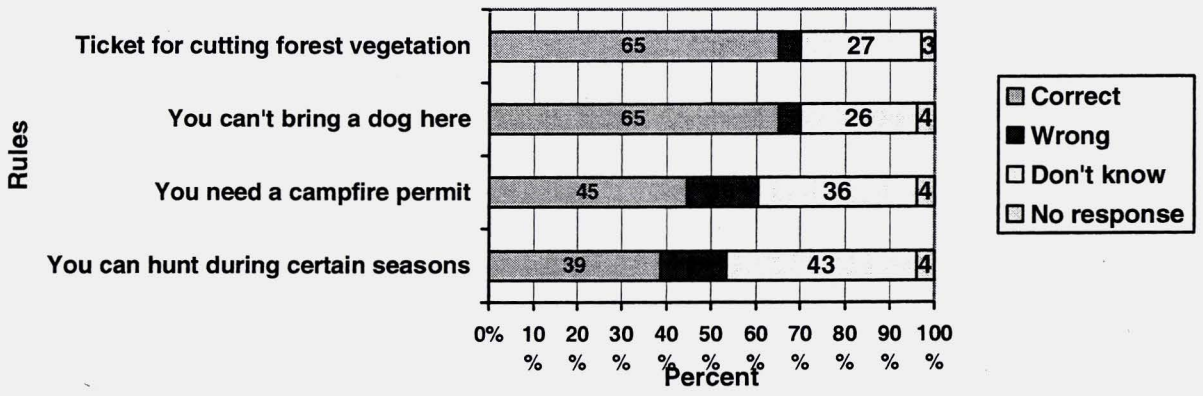

Figure 11. Rules and regulations (n = 173)

Repeat visitors got more correct answers (mean=2.5) than did first time visitors (mean=2.0, $t(166)=-2.46$, $p<0.015$).

Site Attributes

Respondents were asked their opinion about the kinds of facilities and amenities they would like on-site. Of the ten facilities and amenities items, visitors rated an average of 4.5 of them as being "important" or "very important" to their enjoyment of the day use site (SD = 2.99). More than half of day use visitors rated the presence of trashcans, water faucets, picnic tables, parking areas and fire pits/rings as important facilities/amenities to have on site for use (see table 2). Of least importance were telephones and group facilities.

Table 2. Relative importance of features/facilities on-site (n = 173)

	Very Important	Important	Neutral	Unimportant	Very Unimportant	Don't Know / No Response	**Mean**
Trash cans	40%	30%	8%	2%	10%	12%	**4.0**
Water faucets	29%	28%	16%	5%	13%	9%	**3.6**
Picnic tables	23%	34%	19%	8%	9%	8%	**3.6**
Parking areas	18%	38%	21%	5%	10%	7%	**3.5**
Fire pits/rings	28%	23%	18%	7%	17%	7%	**3.4**
Restricted use levels	12%	21%	32%	8%	12%	16%	**3.2**
Law enforcement and patrols	13%	23%	31%	10%	15%	9%	**3.1**
Cooking grills	14%	15%	23%	21%	19%	8%	**2.8**
Group facilities	7%	13%	28%	23%	18%	11%	**2.7**
Telephones	7%	16%	27%	18%	23%	9%	**2.6**

First time visitors felt that "cooking grills" (mean=3.1) were more important than did repeat visitors (mean=2.6, $t(156)=3.08$, $p<0.002$). Visitors with some college or less felt that "cooking grills" (mean=3.1, $t(156)=2.22$, $p<0.028$) and "group facilities" (mean=2.9, $t(151)=2.51$, $p<0.013$) were more important than did repeat visitors (mean=2.6 and 2.5, respectively). Visitors 38 years and older felt that "law enforcement and patrols" (mean=3.3) were more important than visitors 37 or younger (mean=2.9, $t(153)=-1.98$, $p<0.049$).

Respondents were asked their preferences about trail length and design. The most popular types of hiking trails were those that were "somewhat challenging" (53%) and trails that take about an hour to walk (47%; see Fig. 12).

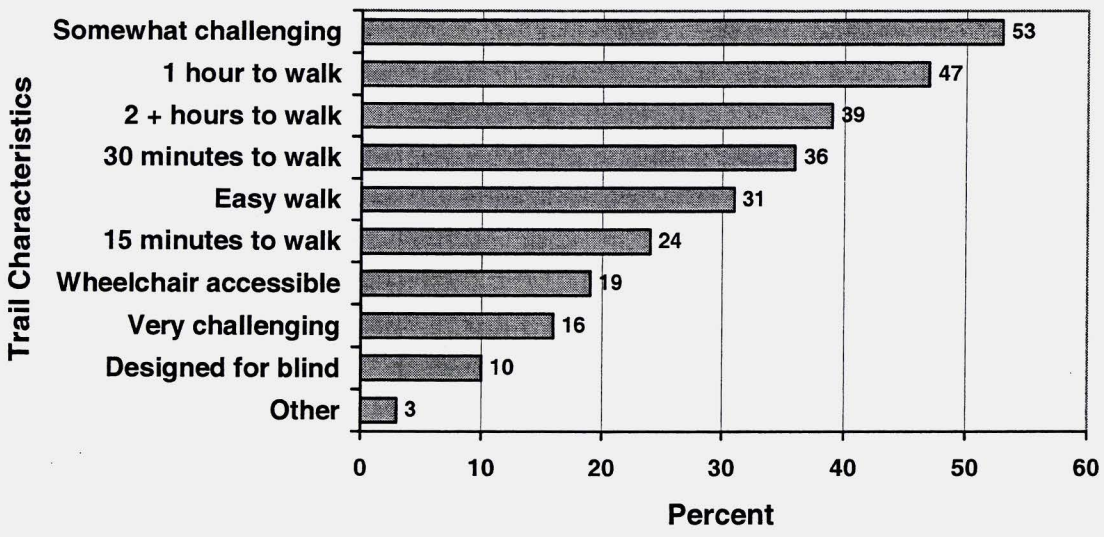

Figure 12. Trail preferences (n = 173; 481 multiple responses)

Visitors with a college degree were more likely to prefer trails that were "somewhat challenging" (62%, p=0.011).

Other Visitor Perceptions

Respondents were told that some day use sites have been impacted by various human activities and were asked their opinions about impacts at the day use site. Visitors felt that average of five events (out of nine) "bothered them a lot" (SD=2.45). Most of the day use visitors indicated that "litter at picnic sites", "litter along the road", "drawings or graffiti on natural structures", "drawings or graffiti on man-made structures", and "carving of names, initials or messages on trees" bothered them a lot" (see table 3).

Table 3. Ratings of events or behavior happening at the site (n = 173)

	It bothers me a lot	**It bothers me a little**	**It does not bother me**	**I have not seen this**
Litter at picnic sites	77%	6%	2%	11%
Litter along the road	76%	9%	2%	11%
Drawings or graffiti on natural structures	73%	9%	2%	12%
Drawings or graffiti on man-made structures	67%	13%	4%	16%
Carving of names, initials or messages on trees	64%	17%	5%	12%
Dogs walked off leash	34%	20%	36%	8%
Cars parked at "no parking" areas	31%	38%	16%	12%
People drinking alcohol	21%	21%	45%	10%
A lot of people at the site	21%	47%	21%	9%

The behavior of people at the site was more likely to "bother a little" groups of visitors 37 and younger (51%, p=0.042), those with a college degree (54%, p=0.018), and first time visitors (51%, p=0.034). The behavior "people drinking alcohol" did not bother the groups of visitors 37 and younger (59%, p=0.000).

Additional statistical tests also revealed that respondents 38 years of age and older indicated that a higher number of these items bothered them a lot (mean=5.3 items) as compared to those 37 and younger (mean=4.1 items, $t(167)=-3.36$, $p<0.001$).

Day use visitors' feelings regarding their recreation experience were generally positive, with more than 7 in 10 of the visitors "planning to tell other people about their trip here" (91%), "wanting to return here again" (84%) and thinking "this is a great recreation experience" (80%, see Fig. 13). At least three-quarters of the visitors agreed with the statements that "my experience was as good as I had hoped" (76%), "this trip is well worth the money I spent to take it" (75%) and "the site was safe and secure" (75%).

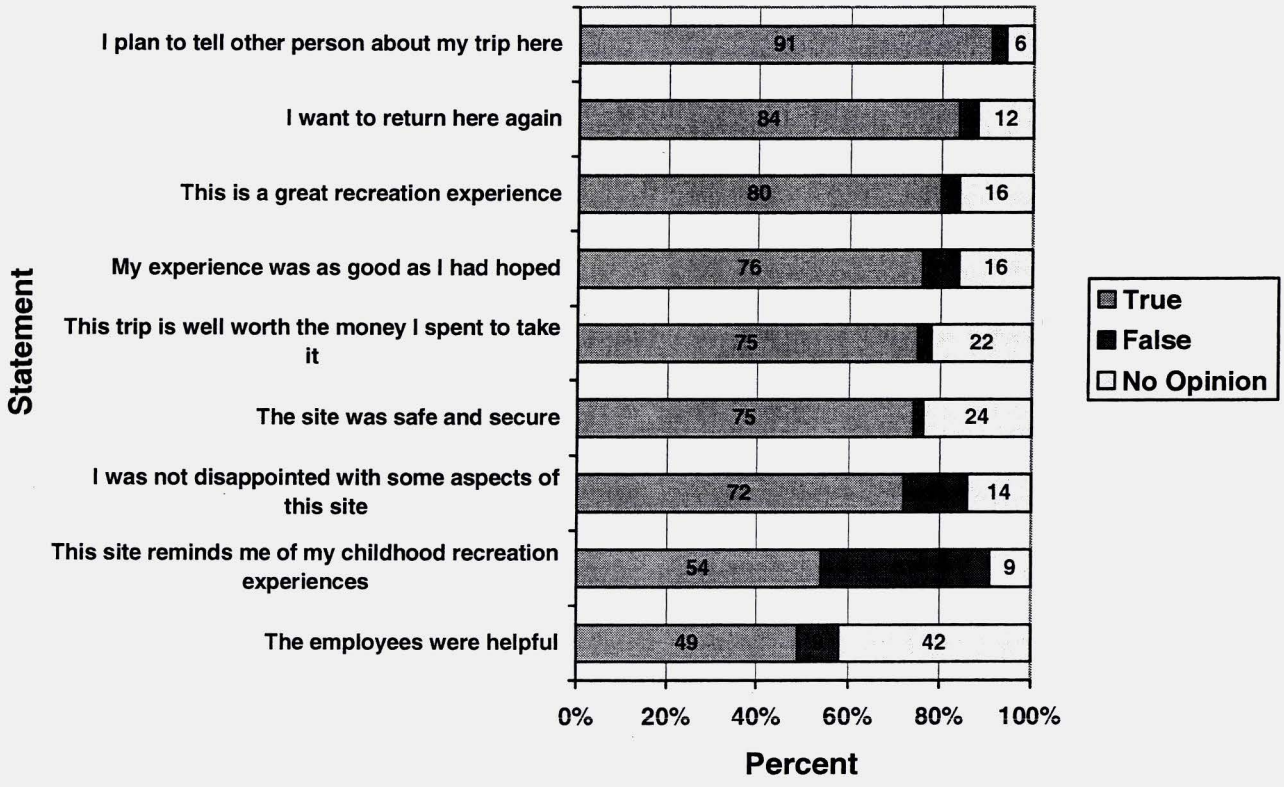

Figure 13. Impression of day use recreation experience (n = 173)

Repeat visitors were more likely to have reported "they were not disappointed with some aspects of this site" (75%, p=0.026) and "their experience was as good as they had hoped" (79%, p=0.006). Visitors with some college or less were more likely to have reported that "the employees were helpful" (61%, p=0.001).

At the close of the instrument respondents had an opportunity to write any other comments they had about the site or their visit (see Appendix A). Most of the comments were positive comments such as ""Yes, it was excellent...," "It's a beautiful day," "Very enjoyable," "I am glad our dogs could come" and "Don't develop this area anymore. It is perfect the way it is." There

were as many comments about the survey instrument as there were about fees. The instrument comments ranged from negative (e.g., "This survey is too long.") to positive (e.g., "Nice ladies giving the survey"). The comments on fees were not supportive (e.g., "With as much tax as we pay, why are park fees so high?" and "There should not be a charge for day use.").

Conclusions

Results from the 2002 Day Use survey were presented in this report with some subgroup comparisons. Overall results indicate that Willamette National Forest visitors were white, an average 40 years of age, an average 15 years of education with annual household incomes over $50,000. Most day use visitors were born in the U.S. Most of the visitors were with family and friends and planned to stay more than 6 hours. Most were first-time visitors and had traveled an average 2 hours to get to the site contacted. Repeat visitors had been returning to the day use sites an average 11 years. These visitors usually engaged in camping, day hikes and picnics/barbecues while on-site. Many reported usual activities to be driving for pleasure, sightseeing, fishing, boating and viewing wildlife. Additionally, mountain bike riding was reported as a favorite activity and one that visitors engaged in often. Day use visitors reported an interest in informational talks on local mountain history and animals and their habitat. They heard about the day use sites from informal or word-of-mouth sources such as family and friends. On-site preferences for information sources include a brochure at the entrance to the site, bulletin boards, signs along the road, and ranger visits. The kinds of things they would most like to get information about include hiking in the area, camping in the area, location of day hike trails, history of the area, best times to visit the area to avoid crowds, rare types of plants and animals and cultural and historical features of the area. Preferred site attributes were trashcans, water faucets, picnic tables, parking areas and fire pits/rings. They preferred somewhat challenging trails that take about an hour to walk. The visitors were most bothered by litter at picnic sites, litter along the road and drawing or graffiti on natural and man-made structures. Most held positive feelings regarding their trip and plan to tell other people about the trip, plan to return, and had a great recreation experience.

An important demographic was repeat visitation. Repeat visitors to this site tended to be older than first time visitors, visited more National Forest day use sites (other places) in the past year than first time visitors, and were more likely to report they were not disappointed with some

aspects of the day use site and their experience was as good as they had hoped. Another important demographic was age. Visitors 38 and older were more likely to be with family, to have participated in more activities, to want to receive information from evening programs at information center or by ranger visits, and preferred to get information from bulletin boards. They were more likely to want information about the location of day hike trails and history of the area and felt that law enforcement and patrols were more important than visitors 37 or younger. Additionally, education was an important demographic. Visitors with college degrees were more likely to come from a greater distance, taking an hour or longer to get to the site, they were more likely to day hike, to want information about best times to visit the area to avoid crowds, hiking in the area, location of day hike trails, rare types of plants and animals and cultural and historical features of the area. Also visitors with a college degree were more likely to prefer trails that were somewhat challenging.

Managers of the Willamette National Forest can use the results of this report in several ways. Site management and site planning are the key uses of the results from the survey of day users of the Forest. The demographics suggest a mostly white and English speaking and reading clientele, suggesting a focus on English language communications. Of course, multiple languages in communications will enhance outreach to those groups who may be underrepresented at day use sites. There is a great deal of interest in many topics including information about additional activities on the Forest and features about the Forest. It appears that brochures, information on bulletin boards and signs along the road can offer a variety of information. The data also suggest that visitors prefer a fair amount of development of sites. Some of the sites are already developed but some could be developed further to provide trashcans, water faucets, picnic tables, parking areas, and fire pits/rings. Note though that not all sites are appropriate for these kinds of development. The data also suggest that it is important to visitors that sites are clear of litter and free of graffiti. This is often difficult to do, but day use visitors appreciate clean areas. Finally, visitors plan to return to the site and to tell other people about the site which suggests planning for additional visitation, and potentially visitation by new visitors, making it important to evaluate the differences between first time and repeat visitors, including age-related considerations.

References

Chavez, D.J. 2001. **Managing outdoor recreation in California: Visitor contact studies 1989 – 1998.** Gen. Tech. Rep. PSW-GTR-180. Albany, CA: Pacific Southwest Research Station, Forest Service, U.S. Department of Agriculture; 100 p.

Chavez, D.J.; Mainieri, T. 1995. **Recreation day use series- Report 1: San Bernardino National Forest, Summer 1992.** Unpublished research report. 58 p.

Chavez, D.J.; Winter, P.; Mainieri, T. 1995a. **Recreation day use series- Report 2, Angeles National Forest, Summer 1993.** Unpublished research report. 73 p.

Chavez, D.J.; Winter, P.; Mainieri, T. 1995b. **Recreation day use series- Report 3, Los Padres National Forest, Summer 1994.** Unpublished research report. 44 p.

Chavez, D.J; McCollum, D; Olson, D. 2002. **Day Use Series: 2001, the San Bernardino National Forest.** Unpublished report. Riverside, CA: USDA Forest Service, Pacific Southwest Research Station. 31 p.

Appendix A

Additional Comments from Respondents

Comment

This is our 11th year coming here.

I would like to see hiking in old growth forest explained. A new trail to connect old growth remnants for example, old growth is important for us.

Yes, it was excellent, and the girls from Oregon State are pretty.

Include Italians on your ethnic list.

This survey is too long! Needs to be shorter.

Nice ladies giving the survey.

Friendly young ladies presenting this.

Too long

I really enjoyed talking with the girls. They were really nice.

No - cannot think of anything. Thank you

Can't think of anything - Thank you

I feel that horses should not be allowed into wilderness areas.

Too long of survey.

It's a beautiful day.

The forest service needs to stop wasting our money on expensive/large log cabin and hardwood ranger stations with 3D displays of the area. I want my money to go toward trail improvements and forest fire control not the superficial [expletive]!

I have been greatly bothered to ask the fee demo program, (for hiking trail use). Our federal taxes have been set to cover recreational use of these public lands and they should continue to cover the costs to maintain trails!

It is a beautiful, peaceful little site and I would hope it remains this way. I resent being charged $5.00 for a hike to Cone Mountain when our taxes already pay for maintenance of the area. I do not want to see our public land privatized.

Fishy.

Thanks!

Very important to pack out at this site - litter would be a major problem.

Very important to pack out at this site--litter would be a major problem.

Don't like the fact they charge so much for recreation. Government thinks they own everything. It belongs to Jehovah for our enjoyment. It's hard to afford the cost.

Please reduce camping fee at some campgrounds.

Very enjoyable.

I am glad our dogs could come.

No further development.

I love Big Lake! Do not develop this site any further.

Don't develop this area anymore. Its perfect the way it is.

Too developed. Like no facilities, no paved roads.

With as much tax we pay, why are park fees so high?

There should not be a charge for day use!

Too many additional fees-

The main thing I want is a maintained trail system to get into the back country, no facilities necessary.

Have a happy day.

Thanks for asking

No.

So far so good.

It rained the whole time!